

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016859**Date Inspected:** 21-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance Inspector (QAI) Bert Madison was present at Yerba Buena Island in California between the times noted above for observations relative to the work being performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below.

- 1). OBG Field Splice 4W/5W Weld ID: C2, Face A (SMAW Repairs)
- 2). OBG Field Splice 5W/6W Weld D1 & D2, Face B
- 3). OBG Field Welding of East Line Personnel Access Hole Restoration
- 4). OBG Field Splice 6W/7W weld ID: B1, C1, E1 and F1 (Fit-up activities)
- 5). OBG Field Splice 6E/7E weld ID: F1, Face B (SMAW)
- 6). OBG Field Splice 6E/7E weld ID: A1 through A5, Face A (QC VT & NDE)

- 1). OBG Field Splice 4W/5W Weld ID: C2 - Face A (SMAW UT Repairs)

The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing grinding to excavate two UT reject areas on the A face (interior) of the OBG Field Splice 4W/5W Weld ID: C2. Later in the shift the QAI periodically observed Mr. Kaddu welding the excavated areas per the Shielded Metal Arc Welding (SMAW) process in the 3G position. QC Inspector Jesse Cayabyab was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1000 Repair. The welding of the 2 excavated areas was completed and the QAI observed that the work appeared to be in general compliance with contract documents.

- 2). OBG Field Splice 5W/6W Weld D1 & D2, Face B

The QAI periodically observed that AB/F approved welder Rory Hogan (ID 3186) was setting up equipment on

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the bottom plate at OBG Field Splice 5W/6W in preparation for Flux Cored Arc Welding (FCAW-G) in the prepared groove on the B face (exterior). The QAI did not observe welding at this location on this date.

### 3). OBG Field Welding of East Line Personnel Access Hole Restoration

The QAI periodically observed AB/F approved welder Wai Kitlai (ID 2953) performing grinding to prepare the exterior groove for welding per the SMAW process in the 1G (flat) position. The access hole location was on the Crossbeam side between PP19 and PP20. The QAI did not observe welding at this location on this date.

### 4). OBG Field Splice 6W/7W weld ID: B1, C1, E1 and F1 (Fit-up activities)

The QAI periodically observed AB/F approved welders Rick Clayborn (ID 2773) and Eric Sparks (ID 3040) performing fit-up activities on the interior of OBG Field Splice 6W/7W. The welders were welding to install U Bars on the interior faces of welds B1, C1, E1 and F1. The copper backing bars were installed on welds B1 & F1. The QAI periodically observed QC Inspector Tony Sherwood was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-F1200A. The QAI observed that work at this location appeared to be in general compliance with the contract documents.

### 5). OBG Field Splice 6E/7E weld ID: F1, Face B (SMAW)

The QAI periodically observed the in process welding of OBG Field Splice 6E/7E weld ID: F1, on the B Face (interior) per the SMAW process in the 3G (vertical) position by ABF welding personnel Yao Xin Liang (ID 7238). QC Inspectors Tom Pasqualone and later John Pasqualone were present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1110-A. The work at this location was in process during this shift and the QAI observed that work appeared to be in general compliance with the contract documents.

### 6). OBG Field Splice 6E/7E weld ID: A1 through A5, Face A (QC VT & NDE)

The QAI periodically observed the QC Inspectors Tom Pasqualone and Salvador Merino performing Magnetic Particle Testing (MT) of OBG Field Splice 6E/7E weld ID: A1 through A5 on the A face (exterior). The QAI observed that the performance and evaluation of the MT appeared to comply with the MT procedure identified as SE-MT-CT-D1.5-101 Rev. 4. The QAI observed that MT at this location was completed and only visual indications were marked for repairs. The work appeared to be in general compliance with the contract documents. The QAI also periodically observed QC Inspector Steve McConnel performing Ultrasonic Testing (UT) at this location. Mr. McConnel utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the splice weld. The QC technician performed the required longitudinal wave testing utilizing a 1" diameter transducer for base metal soundness and performed the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. See photo below. The work at this location was in process during this shift and the QAI observed that work appeared to be in general compliance with the contract documents.

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### Summary of Conversations:

Conversations on this date with Quality Control Inspectors were general in nature and pertained to locations of welding and QC activities.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammed Fatemi (916) 813 3677, who represents the Office of Structural Materials for your project.

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**Inspected By:** Madison,Bert

Quality Assurance Inspector

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**Reviewed By:** Levell,Bill

QA Reviewer